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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER GHOWRWAL, OMAR J	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 20 is objected to because of the following informalities: "at least one sub-object" should be "the sub-object" because claim 19 recites only one sub-object as part of descriptors.
2. Claim 22 is objected to because of the following informalities: "the distribution type" and "the length" lack proper antecedent basis.
3. Claim 23 is objected to because of the following informalities: "the parameter of the length of the ON periods" lacks proper antecedent basis.
4. Claim 24 is objected to because of the following informalities: "the parameter of the length of the OFF periods" lacks proper antecedent basis.
5. Claim 25 is objected to because of the following informalities: "wherein packet switched" should be "wherein the packet switched".
6. Claim 27 is objected to because of the following informalities: "at least one sub-object" should be "the sub-object" because claim 19 recites only one sub-object as part of descriptors.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 19-21, 25, 27-28, 31** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*").

As to **claim 19**, *Hsu* discloses a method, in a packet switched telecommunications network having a plurality of nodes, for providing resource reservation between a reservation initiator and a reservation receiver of an ON-OFF like traffic (figs. 1-2), comprising the steps of:

defining an object including descriptors of the desired Quality of Service (QoS) (para. 0019, para. 0035, i.e. flowspec), packet level traffic parameters characterizing the traffic envelope (para. 0036, Tspec is a parameter that describes data flow), and sub-object of description of source statistics for a call admission control (para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control);

initializing reservation for a flow of transmission of the ON-OFF like traffic in the reservation initiator (fig. 2, para. 0045, receiver initiates reservation request);

reserving resources in the nodes along the flow of transmission (fig. 2, para. 0017, RSVP results in resources being reserved in each node along the data path, para. 0046, using RSVP RESV messages);

receiving reservation message in the reservation receiver (fig. 2, para. 0046, RESV received by senders);

and, sending back an acknowledgement to the reservation initiator (fig. 2, para. 0045, requests are acknowledged by confirmation message).

As to claim 20, *Hsu* further discloses the method of claim 19, wherein the call admission control uses at least one sub-object of the source statistics description in each node along the flow of transmission (para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

As to claim 21, *Hsu* further discloses the method of claim 19, wherein the sub-object of description of the source statistics comprises information about type and at least one parameter of the distribution of the traffic (para. 0037, filter spec, (part of RSVP reservation request, para. 0035) contains sender IP address (i.e. address pertaining to a protocol type, IP, (info about type) and the sender's address is a parameter of the distribution of traffic since it is where data is sourced from) and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

As to claim 25, *Hsu* further discloses the method of claim 19, wherein packet switched telecommunications network is an IP based network (para. 0018, IP protocol).

As to claim 27, *Hsu* further discloses the method of claim 19, wherein the call admission control uses at least one sub-object of source statistics description in edge

nodes of a resource domain along the flow of transmission (fig. 2, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node (i.e. intermediate nodes adjacent to the sender and receiver are taken as edge nodes, resource domain can be taken to be the entire pathway from sender to receiver) the RSVP process passes the request to admission control).

As to **claim 28**, *Hsu* discloses a system for providing resource reservation in a packet switched network including a reservation initiator (RI), a reservation receiver (RR) and a plurality of nodes linked together by transmission channels, in which system the resource reservation of an ON-OFF like traffic is implemented (figs. 1-2) and wherein at least a part of the plurality of nodes comprise:

means for processing descriptors of the desired QoS (fig. 4, showing processors, para. 0019, para. 0035, i.e. flowspec);

means for processing packet level traffic parameters characterizing the traffic envelope (fig. 4, showing processors, para. 0036, Tspec is a parameter that describes data flow);

and, means for processing description of source statistics (fig. 4, showing processors, para. 0024, RSVP QoS request analyzed by admission control, para. 0037, filter spec (part of RSVP reservation request, para. 0035) contains sender IP address and generalized source port, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

As to claim 31, *Hsu* further discloses the method of claim 19, wherein the nodes are IP routers of an IP network (para. 0018, IP protocol, para. 0038-0040, at each intermediate node the RSVP process passes (i.e. routing) the request to admission control).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*") in view of U.S. Patent No. 7,113,791 B2 to *Lepschy et al.* ("*Lepschy*").

As to claim 22, *Hsu* does not expressly disclose the method of claim 19, wherein the distribution type of the length of the ON and/or OFF periods are exponential.

*Lepschy* discloses a model described as being of the M/M/N type where the first M stands for the exponential distribution of the calls offered by the system, the second M stands for the exponential distribution of the duration of the calls served and N corresponds to the number of lines, telephone channels or resources available, all this being expressed using what is known as the "Erlang-B" formula (col. 1, lines 51-61).

*Hsu* and *Lepschy* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate M/M/N as taught by Lepschy into the invention of Hsu. The suggestion/motivation would have been to have dimension and performance assessments of telecommunications networks or systems in which the traffic offered is comprised of voice traffic only (Lepsch, col. 1, lines 51-54).

11. **Claims 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*") in view of U.S. Publication No. 2004/0184477 A1 to *Tavli et al.* ("*Tavli*").

As to claim 23, *Hsu* does not expressly disclose the method of claim 19, wherein the parameter of the length of the ON periods is the mean time of ON periods.

*Tavli* discloses the average data burst duration, T\_DB, which is the average length of a data burst (i.e., average duration of a speech burst, m\_s), T\_S, the average silence time between data bursts (i.e., average gap duration, m\_g), (para. 0068).

*Hsu* and *Tavli* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate T\_DB and T\_S as taught by *Tavli* into the invention of *Hsu*. The suggestion/motivation would have been to provide an energy-efficient technique for selective listening on a network (*Tavli*, para. 0010).

As to claim 24, *Hsu* does not expressly disclose the method of claim 19, wherein the parameter of the length of the OFF periods is the mean time of ON periods.

*Tavli* discloses the average data burst duration,  $T\_DB$ , which is the average length of a data burst (i.e., average duration of a speech burst,  $m\_s$ ),  $T\_S$ , the average silence time between data bursts (i.e., average gap duration,  $m\_g$ ), (para. 0068).

*Hsu* and *Tavli* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate  $T\_DB$  and  $T\_S$  as taught by *Tavli* into the invention of *Hsu*. The suggestion/motivation would have been to provide an energy-efficient technique for selective listening on a network (*Tavli*, para. 0010).

12. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*") in view of U.S. Publication No. 2002/0034166 A1 to *Barany et al.* ("*Barany*").

As to claim 26, *Hsu* further discloses the method of claim 19, wherein nodes are routers (fig. 2, para. 0038-0040, at each intermediate node the RSVP process passes the request to admission control).

*Hsu* does not expressly disclose of a Terrestrial Radio Access Network of a Universal Mobile Telecommunications Network (UTRAN).

*Barany* discloses a radio access network is UTRAN and packet-switched (i.e. routed) call control signals such as RSVP are used (para. 0051).

*Hsu* and *Barany* are analogous art because they are from the same field of endeavor regarding data communications.



At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the UTRAN using RSVP as taught by Barany into the invention of Hsu. The suggestion/motivation would have been to establish a packet-switched call in a wireless network by sending an identifier to identify the call as a packet-switched call and communicating control signaling in traffic channels of the wireless network (Barany, para. 0010).

13. **Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*") in view of U.S. Publication No. 2002/0160785 A1 to *Ovesjo et al.* ("*Ovesjo*").

As to claim 29, *Hsu* does not expressly disclose the system of claim 28, wherein the reservation initiator (RI) is a base station controller and the reservation receiver (RR) is a radio network controller of the packet switched network.

*Ovesjo* further discloses the BSC sending a handover required message to the core network (BSC is the initiator), which then sends a relocation request message to t-RNC, which then reserves radio resources (RNC is reservation receiver) (fig. 3, items 3-2 to 3-5, para. 0038-0039).

*Hsu* and *Ovesjo* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the BSC sending a handover required message to the core network, which then sends a relocation request message to t-RNC, which then reserves radio resources as taught by *Ovesjo* into the invention of Hsu. The

suggestion/motivation would have been to have an inter-RAT handover procedure triggered by the BSC (Ovesjo, para. 0038).

14. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2003/0227871 A1 to *Hsu et al.* ("*Hsu*") in view of WO 00/62572 to *Willars*.

As to claim 30, *Hsu* does not expressly disclose the system of claim 28, wherein the reservation initiator (RI) is a radio network controller and the reservation receiver (RR) is a base station controller of the packet switched network.

*Willars* discloses RNC requests a DCH set up, and BSC receives this request (fig. 5A).

*Hsu* and *Willars* are analogous art because they are from the same field of endeavor regarding data communications.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to incorporate the RNC requests a DCH set up, and BSC receives this request as taught by *Willars* into the invention of *Hsu*. The suggestion/motivation would have been to for the base station controller to reserve and set up the necessary dedicated channel processing resources at the base station (*Willars*, page 10, lines 12-13).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR GHOWRWAL whose telephone number is (571)270-5691. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on (571)272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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